

Docket No.: A-2820

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MAIL STOP: APPEAL BRIEF-PATENTS

By: 

Date: February 23, 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

Applic. No. : 09/848,583 Confirmation No. 8707
Inventor : Wolfgang Matthes et al.
Filed : May 3, 2001
TC/A.U. : 3724
Examiner : Jason D. Prone
Title : Cutting Device And Method For Trimming

Docket No. : A-2820

Customer No. : 24131

Hon. Commissioner for Patents
Alexandria, VA 22313-1450

BRIEF ON APPEAL

S i r :

This is an appeal from the final rejection in the Office action dated October 10, 2003, finally rejecting claims 1-10, 12 and 13.

Appellants submit this *Brief on Appeal* in triplicate, including payment in the amount of \$330.00 to cover the fee for filing the *Brief on Appeal*.

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Brief

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Real Party in Interest:

This application is assigned to Heidelberger Druckmaschinen AG of Heidelberg, Germany. The assignment will be submitted for recordation upon the termination of this appeal.

Related Appeals and Interferences:

No related appeals or interference proceedings are currently pending which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

Status of Claims:

Claims 1-10 and 12-13 are rejected and are under appeal.
Claim 11 is withdrawn from consideration.

Status of Amendments:

No claims were amended after the final Office action. A *Notice of Appeal* was submitted on December 22, 2003.

Summary of the Invention:

As stated in the first paragraph on page 1 of the specification of the instant application, the invention relates to a cutting device and method for trimming margins of products, in particular, stitched or otherwise joined-together sheets of paper, the cutting device having a transport device and a first drive mechanism for driving the transport device,

as well as a lifting device for moving knives for performing the margin trim, and having a second drive mechanism for driving the lifting device.

Appellants explained on page 10 of the specification, line 5, that, referring now to the drawings and, first, particularly to Fig. 1 thereof, there is shown therein a representative example of a cutting device for trimming margins, which has separate drive devices. A first drive motor 1 produces the motion of a knife lifting device 2, to which knives are secured. The product travel direction is indicated by arrows. A second drive motor 4, via a first and second drive shaft 5, 6, drives belts 7 and 8 of a transport system 9. For both drive motors 1 and 4, control units 10 and 11, respectively, are provided, which can communicate with one another by a connection 12 for exchanging data and/or control signals. The connection 12 can also lead to a machine control unit.

Appellants further explained on page 10 of the specification, line 18, that the essential elements of the drive mechanisms which achieve the two courses of motion can be seen in Fig. 2. The first drive motor 1, through the intermediary of the synchronous belt ²³(15) of the synchronous belt pulley 21 and of the transmission 22 achieves the vertical, nonharmonic oscillatory motion of the knife lifting device 2. The knives

3 are pressed against the knife 13 during the cutting operation. The second drive motor 4, through the intermediary of a mechanical transmission 14, drives the shafts 5 and 6, so that the belts 7 and 8 of the transport system are moved. The arrows again indicate the product travel direction.

Appellants outlined on page 11 of the specification, line 4, that in Fig. 3, the transport system is shown by itself. Via the mechanical transmission 14, the drive motor 4 drives the drive shafts 5 and 6 so as to revolve the belts 7 and 8 of the transport system 9. The control unit 11 and the connection 12 for exchanging data and/or control signals can also be seen. The products are braked at the front stops 15, as the products arrive from a further non-illustrated transport system, from the delivery end of a stitching machine. By the electronic control provided by the control unit 11, it is possible, even at high speeds, to guide the product gently against the front stops 15.

It is further outlined on page 11 of the specification, line 16, that another exemplary embodiment of the drive mechanism of the transport system is shown in Fig. 4. In this embodiment, the drive shafts 5 and 6, the belts 7 and 8, respectively, of the transport system 9 are driven by two drive motors 4A and 4B, respectively, with associated control

units 11A and 11B, respectively. Coupling of the two drive motors 4A and 4B is effected via the connection 12 for exchanging data and/or control signals, which furthermore can also lead to the control unit of the knife lifting device or to the machine control unit. The product 16 transported by this system is braked at the front stops 15. In this embodiment, in addition to the described controlled motion of the conveyor belts in the interest of gently braking the product, motion of the conveyor belts relative to one another can also be achieved. In general, however, it is advantageous to coordinate the motion of the two drive mechanisms and, thus, of the two conveyor belts.

As set forth on page 12 of the specification, line 8, Fig. 5 shows a block circuit diagram of an embodiment of the stepping drive mechanism of the invention. The drive motor 1 for the knife motion is connected to the control unit 10 in a manner for accomplishing a regulation of the angular position of the motor shaft, or so-called position regulation. For the position regulation, a position transducer 19 is used. The drive motor 4 for the transport system 9 is also connected to the control unit 11 so that a position regulation can be effected. A position transducer 20 is used for this position regulation. The control units 10 and 11 are coupled with one another and with the machine control unit 17 via the

connection 12 for exchanging data and/or control signals. The machine control unit 17 typically has a human-machine interface 18, by which settings can be made. In particular, settings are contemplated which provide the machine with information about the format and thickness of the products, the material properties of the products, and the desired speed.

Appellants stated on page 13 of the specification, line 5, that, for the various formats and materials to be handled, information for achieving the individual courses of motion of the transport system and of the knives is stored in memory in the electronic controller. A machine operator, through the intermediary of the human-machine interface 18, can input the relevant product parameters or select certain combinations. The machine controller then assumes the task of performing the associated courses of motion which are provided for these parameters.

References Cited:

No claims have been rejected over prior art.

Issues

1. Whether or not the specification satisfies the requirements of 37 CFR 1.71.

2. Whether or not claims 1-10 and 12-13 contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, under 35 USC 112, first paragraph.
3. Whether or not claims 1-10 and 12-13 particularly point out and distinctly claim the subject matter which appellant regards as the invention under 35 U.S.C. § 112, second paragraph.

Grouping of Claims:

Claims 1 and 12 are independent. Claims 2-10 depend on claim 1 and claim 13 depends on claim 12. The patentability of claims 2-10 and 13 is not separately argued. Therefore, claims 2-10 and 13 stand or fall with claims 1 and 12, respectively.

Arguments:

In item 1 on page 2 of the above-identified Office action, the specification has been objected to as lacking clarity under 37 CFR 1.71.

More specifically, the Examiner has stated that it is unclear how the lifting device 2 moves knives 3 against the stationary knife 13.

It can be clearly seen from Figs. 1 and 2 of the instant application that the knives 3 are fixedly mounted on the lifting device 2 and thus move together with the lifting device 2. It is therefore clear that the knives 3 can be pressed against the knife 13 during the vertical, non-harmonic oscillatory motion of the lifting device 2.

In item 3 on pages 2-3 of the above-identified Office action, claims 1-10 and 12-13 have been rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

More specifically, the Examiner has stated that it is unclear how the lifting device 2 uses the vertical, non-harmonic oscillatory motion to press knives 3 against the knife 13; it is uncertain if the whole lifting mechanism 2 moves up and down to move the knives 3 towards knife 13 or if the lifting mechanism pivots about the screw and during this pivot the

blades are dropped down to cut the work piece. It is uncertain if the knife 13 is a stationary blade to create a shearing cut with knives 3 or blade 13 acts as an anvil and knives 3 perform a punching/stamping cut.

It is noted that the enablement requirement under 35 U.S.C. § 112, first paragraph, does not require Applicants to disclose everything necessary to practice the invention. The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosure in the patent application coupled with information known in the art without undue experimentation. United States v. Teletronics, Inc., 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988). In fact, what is well known is best omitted. See In re Buchner, 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991) ("A patent need not teach, and preferably omits, what is well known in the art.") All that is necessary is that one skilled in the art be able to practice the claimed invention, given the level of knowledge and skill in the art. Further the scope of enablement must only bear a "reasonable correlation" to the scope of the claims. As concerns the breadth of a claim relevant to enablement, the only relevant concern should be whether the scope of enablement provided to one skilled in the art by the disclosure is commensurate with the scope of protection sought by the claims. See MPEP 2164.08.

A person skilled in the art would easily understand from the drawings and the disclosure of the invention of the instant application how the lifting device 2 uses the vertical, non-harmonic oscillatory motion to press knives 3 against the knife 13. In addition, how the lifting device 2 moves and what type of cutting is taking place are not essential to the invention of the instant application because they are not claimed in the claims. These functions can be achieved by a person skilled in the art in numerous ways without undue experimentation.

In item 5 on page 3 of the above-identified Office action, claims 1-10 and 12-13 have been rejected as being indefinite under 35 U.S.C. § 112, second paragraph.

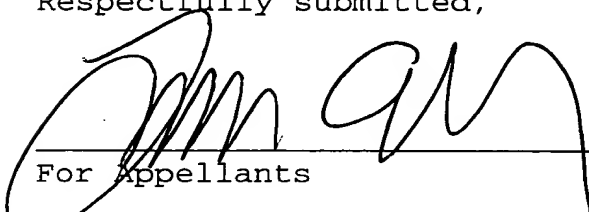
Claims 1-10 and 12-13 are believed to be definite for the same reasons as discussed above in detail.

In view of the above, the honorable Board is therefore respectfully urged to reverse the final rejection of the Primary Examiner and remand to the Primary Examiner to

withdraw the finality of the Office action and continue the examination on the merits.

Respectfully submitted,

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For Appellants

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Appendix - Appealed Claims:

1. A cutting device for trimming margins of products, comprising a transport device and a first drive for driving the transport device, a stroke device for moving knives for performing the trimming of the margins, and a second drive for driving the stroke device, said first drive and said second drive being embodied as separate, mutually independent drives, and both of said drives being connected to one another via a control system.
2. The cutting device according to claim 1, wherein the cutting device serves for trimming margins of joined-together sheets of paper.
3. The cutting device according to claim 2, wherein the cutting device serves for trimming margins of stitched-together sheets of paper.
4. The cutting device according to claim 1, wherein said control system includes a first and a second control unit, said first drive being linked to said first control unit, and said second drive being linked to said second control unit, and includes a connection linking said first control unit to said second control unit.

5. The cutting device according to claim 4, wherein said first and said second control units, respectively, enable a separate setting of one of a speed profile and of an electronic cam disk of said first drive and said second drive.

6. The cutting device according to claim 4, wherein said first drive is connected by said first control unit and said second drive by said second control unit to a machine control unit.

7. The cutting device according to claim 6, wherein said machine control unit has a human-machine interface.

8. The cutting device according to claim 4, including respective position transducers connected to said first and said second control units and to said first and said second drives, respectively, so that a position regulation of a respective one of said first and said second drives is performable with at least one of said first and said second control units.

9. The cutting device according to claim 8, wherein said first and said second drives are motors.

10. The cutting device according to claim 4, wherein said drives are motors, and wherein at least one of said control units for a respective one of said motors has a memory-programmed controller.

12. A gatherer-stitcher having a cutting device for trimming margins of products, comprising a transport device and a first drive for driving the transport device, a stroke device for moving knives for performing the trimming of the margins, and a second drive for driving the stroke device, said first drive and said second drive being embodied as separate, mutually independent drives, and both of said drives being connected to one another via a control system.

13. The gatherer-stitcher according to claim 12, wherein the products having the margins thereof trimmed are sheets of paper joined together by stitching.